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LONG-RANGE PROJECTION OF AVERAGE BENEFITS UNDER OASDI

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Introduction

In its long-range projections of expenditures under the Old-Age, Survivors, and Disability Insurance (OASDI) System, the Office of the Actuary considers benefit payments, administrative expenses, net transfers under the railroad retirement interchange, and vocational rehabilitation expenses for the next 75 years. Benefit payments are by far the largest element, accounting for over 97 percent of all OASDI outgo. In preparing the projections, benefit payments are split primarily by type of benefit, such as old-age and auxiliary benefits (retired worker, wife/husband, and child), survivors benefits (widow/widower, disabled widow/widower, child, mother/father, and aged parent), and disabled worker and auxiliary benefits (disabled worker, wife/husband, and child). For each type of benefit, the number of beneficiaries and the corresponding average benefit payable are projected for each fifth year into the future for 75 years, in the long-range projections. (The short-range projections, covering the first 10 years of the projection period, will not be discussed here. They are done in a similar manner, but there are some significant differences.) This Note will describe how the "average benefit payable" is projected.

It is important to distinguish, in the following discussion, between average newly awarded benefits and average benefits being paid. Benefits being paid in any given year are made up of benefits awarded in that year (the prospective beneficiary having applied and met the requirements for the benefit), benefits awarded in the previous year, in the year prior to that, and so on back through time. To project the average benefit payable, the average benefit awarded in each prior year is first projected. From these figures, the average benefit payable is calculated using a procedure which will be described later.

Historical Development

Over time, the methodology used to project average benefits has become increasingly complex, because of the growing availability of computers and the increasingly complex questions about future costs that must be answered. (Of course, these two causes are closely related.) Before 1970, dynamic factors such as average wage increases and CPI increases were not considered in the projection of average benefits. Average benefits were projected based on two representative earnings histories, one with constant earnings equal to the average earnings of all males in the most recent year, and a similar one based on the average earnings for females. In 1972, when amendments to the Social Security Act provided that the earnings base would be tied automatically to average wage changes and that benefit increases would be tied to CPI increases,

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such economic factors had to be introduced into the projection of benefits.

Briefly, in the methodology established at that time, benefits for OASI and for DI were projected separately, with each based on the projected earnings of a series of cohorts consisting of five hypothetical steady earners assumed to be awarded benefits in each future year. All of the five workers in these sets were assumed to be male; each worker's yearly earnings were a constant proportion of the actual or projected average for all male workers for that year; and the five proportions were designed to cover a reasonable range of possible earnings. The average of the calculated Primary Insurance Amounts (PIAs) awarded in each future year (to the workers in the simulation) was compared to the calculated average award in the base year (again, to workers in the simulation) to compute an index of benefit growth. The resulting index was then applied to the actual average benefit awarded in the base year (to actual Social Security beneficiaries, not to the simulated earners) to obtain the projected average benefits awarded in the future. The average benefit to be paid in each future year was then calculated as the weighted average of awards of previous years, where the weights represented the distribution of the beneficiaries by duration of benefits. Benefits for female earners and for auxiliary and survivor beneficiaries were assumed to increase in proportion to benefits for male earners, with adjustments made in some benefit categories when there were reasons to believe future growth in benefits would not be exactly proportional.

Since 1972, the methodology has become more complex, but the basic idea of calculating an index to be applied to the actual average award in the base year to obtain awards in future years has continued to be a fundamental part of the projection procedure. A number of significant improvements have been made, however, primarily in the development of the cohorts of simulated workers. The number of earners in the simulation model was increased, first to 100 and later to 200 per cohort, for both the OASI and DI models, to improve the resolving power of the procedure. Non-steady earnings histories were substituted for the steady ones in order to reflect more accurately the effects of the lengthening computation period. The non-steady earnings histories included both years of zero earnings and fluctuations in non-zero earnings, where the probability of a year of zero earnings depended on the existence or non-existence of a neighboring year of zero earnings. Assumed earnings above the earnings base were also projected, to allow better estimates of the effect of changing the base.

The most recent revision of this methodology, described below, further increases the size of the cohorts and attempts to refine some of the characteristics of the workers in them. We believe, however, that there is now little room left for expansion of the sample because of the computer time required to perform the projection. Since time is often critical when responding to questions, a timely but less-accurate response is generally preferable to a more-accurate but delayed response. Future improvements are expected to be either minor or else at the expense of some other parts of the methodology, until new computer capabilities allow more significant changes.

Basic Sample of Earnings Histories

The current projection methodology uses an actual sample of earnings histories as a basis for the projected cohorts of workers. The first step in the construction of this sample was the extraction of a subsample of records from the

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Continuous Work History Sample (CWHS)[1]. The CWHS is a 1% sample of all persons, living or deceased, with Social Security numbers; thus, it contains records on more than 2,000,000 people. The subsample drawn from the CWHS for the awards projection consists of all persons in the CWHS who were not receiving OASDI benefits at the end of 1976 but were receiving benefits (aged worker, disabled worker, or survivor) at the end of 1977. This was reduced to 7% of the original 1% (in other words, to a .07% sample) in order to have a more manageable number of beneficiaries. Dependents of retired and disabled workers are not included in the subsample because their benefits are assumed to be proportional to those of the primary beneficiaries. The "raw" subsample as drawn from the CWHS includes records on 1378 beneficiaries, of whom 851 are aged workers (503 male and 348 female), 326 are disabled workers (243 male and 83 female), and 201 are survivors (174 based on male earnings and 27 based on female earnings). For each beneficiary, information available from the CWHS includes PIA and benefit in December 1977, cumulative 1937-1950 earnings and year-by-year 1951-1977 earnings from the associated earnings record, sex, date of birth, first year of eligibility, and other benefit information.

The raw subsample is drawn from a sample of beneficiaries, and therefore is not representative of the population as a whole. If, during the projection period, the composition of the group of beneficiaries should change significantly as compared to the population as a whole, considering only a 1977 sample could give misleading results. For example, the percentage of all females with enough earnings to be eligible for aged worker benefits is projected to rise by about 50% in the future, while that for males is projected to remain about constant. If the average benefits of the "newly eligible" females should differ significantly from that for those already insured, the average overall benefits of females would be affected. Therefore, it is important to include in the sample people who were not insured in 1977 so that the projections for future years would include the "newly eligible" workers. Thus, the next step in constructing the basic sample was to complete the raw subsample of aged beneficiaries to make it more representative of the population as a whole. This was not done for disabled workers, due to the slower growth projected in disability-insured percentages for female workers and to the complexity of the task. It was also not done for survivors, since, as will be noted below, the survivor portion of the basic sample is not currently being used in the long-range projection.

Two additions were made to the raw subsample of aged workers to complete it. First, persons with some earnings, but not enough to be insured for aged worker benefits (fully-insured status), and of retirement age in 1977, were added to the sample. For this purpose, a subsample was drawn from the CPS-IRS-SSA Exact Match File[2] of 200 such persons aged 62 to 65. Of the 200 records drawn, 174 represent females and 26 represent males. Second, 111 theoretical records for persons with no earnings, all assumed to be age 62, were added to the sample. Of the 111 records added, 106 represent females and 5 represent males. As a result, the basic sample includes, in addition to the records of disability and survivor beneficiaries unchanged from the raw subsample, a total of 1162 records of retired workers, of which 534 represent males and 628 represent females.

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Projection of the Basic Sample

Once the basic sample was constructed, a similar sample was developed for each single year in the projection period up to 1990, and quinquenially thereafter to the end of the 75-year projection period (1995 to 2055). For each such year, the number of earners in the sample is the same as in the basic sample, and the age and sex characteristics remain the same for each earner, but the earnings have been updated to represent those of beneficiaries being awarded benefits in that year. The updating of the earnings was done in two parts; first, for years of award up to 2000, and second, for years of award from 2005 onward.

As the year of award moves from 1977 to 2000, the length of the earnings record of each earner increases. For instance, an age-65 retiree in 1977 has year-by-year earnings in the basic sample from 1951 to 1977, representing earnings from age 39 to age 65; his prior earnings were simply aggregated in the pre-1951 total. The parallel retiree in the projected sample for the year 2000 would have to be assigned earnings for each year from 1951 to 2000, representing earnings from age 16 to age 65. To accomplish the lengthening of the year-by-year earnings record while retaining as many as possible of the characteristics of the earner in the basic sample, the year-by-year earnings record was expanded by duplicating some randomly-selected years of earnings; however, earnings near the time of retirement were not considered in the random selection for duplication, because, for many purposes, the exact pattern of earnings prior to retirement is important. Earnings records of awardees under age 48 in 1977 (in disability and survivor cases) were not expanded, because, in general, they had no pre-1951 earnings and had a full earnings record by 1977. In all cases, the year-by-year earnings in the projected earnings records were adjusted, after any expansion of the earnings record, to reflect the past or assumed future increases in average wages.

Before expansion of the earnings record could be accomplished, some other problems had to be resolved. The first relates to the fact that the basic sample included only earnings up to the earnings base. Because of the ad hoc increases in the earnings base included in the 1977 Amendments, and because of the automatic adjustment mechanism, the base is projected to be higher during the projection period than during the period 1951 to 1977 (after adjustment for inflation). Thus, it was necessary to approximate earnings over the earnings base for the year-by-year earnings in the basic sample. This was done with a random selection procedure, using a statistical distribution of earnings in excess of the earnings base provided by SSA's Office of Research and Statistics. Second, the lump-sum total of earnings prior to 1951 had to be projected to future years of award. Such total earnings were projected to decrease linearly, by year of award, to zero by 1990, or by an earlier year if the earner in the basic sample were younger than 62.

By the year 2000, the earnings records in all cases were assumed to cover a full working life. The year 2000 projection was taken as a starting point for projections after that year, with the level of earnings adjusted to reflect assumed future increases in average wages.

The earnings for each calendar year in the constructed samples were further adjusted to reflect the overall projected changes in male and female rates of participation in Social Security covered employment, in fully insured rates,

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and in earnings differentials. In general, earnings levels of females were increased and earnings levels of males were slightly decreased to narrow, but not to eliminate, the differential in earnings between the sexes. Some of the years with no earnings were randomly selected to become years with positive earnings on female earnings records to produce increasing overall rates of participation in Social Security covered employment and increasing fully-insured rates for females in the constructed samples.

Adjustments were also made to account for the fact that, since year-by-year earnings were not available prior to 1951, the expansion of the earnings records from the basic sample was performed on the basis of earnings at ages 35 and above (no retiree in 1977 could be younger than 35 in 1951). Earnings in general are lower at the younger ages, even after accounting for general wage increases; therefore, adjustments were necessary as earnings were projected for younger ages to assure that the overall average coverage rates and the resulting earnings levels were reasonable.

Calculated Amounts

For each constructed sample, the operations of the OASDI system were simulated to calculate the benefit payable for each earnings record in the sample. Benefits in future years depend on a number of variables, which, in turn, depend on changes in the CPI and on changes in average wages. Annual benefit increases for those on the rolls and those eligible for benefits, and for the special minimum PIAs generally equal annual increases in the CPI. The PIA formula bend points, the wage-indexing amount, the earnings base, and the amount required for a quarter of coverage are all tied to changes in the average wage.[3] Table 1 presents the average wage and CPI increase assumptions from the 1981 Trustees Report[4] for the four long-range sets of assumptions. Based on those assumptions, the necessary program variables were projected.

In the simulation for each constructed sample, the earnings in each earnings record were checked to see if they were sufficient to produce the insured status necessary for the type of benefit applicable to that record. (Fully insured status is required for retirement benefits, fully or currently insured status for young survivor benefits, fully insured status for aged survivor benefits, and fully and disability insured status for disability benefits.) The year-by-year earnings in each record were compared to the yearly quarter of coverage amount to compute the yearly quarters of coverage earned, and the applicable insured status test was applied.

If the insured status was met, the PIA was computed for that earnings record. Under the normal PIA computation procedure,[5] an average of a specified number of highest years of indexed earnings is computed and designated the Average Indexed Monthly Earnings (AIME). The number of years of earnings required depends on the year of eligibility of the earner. For retirees, the year of eligibility is the year of attainment of age 62, while for disabled workers it is the year of disability onset. In either case, the year of eligibility must be prior to or the same as the year of award. In the constructed samples, the year of eligibility for each record was assumed to precede the year of award by the same number of years that eligibility preceded award in the parallel record in the basic sample.

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Once the AIME for each record was computed, the applicable PIA formula, including benefit increases after eligibility, was applied to produce the PIA at award. In all cases, the special minimum PIA was calculated, and if greater it became the PIA at award. In some cases, other PIA calculation methods were considered. If there were any earnings prior to 1950, the old-start PIA was considered. If eligibility was prior to 1979, the PIA was calculated by pre-1977 law methods. If a retiree in a constructed sample was born between 1917 and 1921, the transitional guarantee PIA was calculated. In each case, the highest applicable PIA became the PIA at award.

Average Awards and Benefits

Once the PIAs were calculated for each record in each constructed sample, the weighted average PIAs were found for each of the following four groups: male retired workers, female retired workers, male disabled workers, and female disabled workers. Because the categories were already split by sex, the weights attempted to adjust the average awards in future years for changing age distributions at time of award. For retirees, the age cells considered went by single year of age from 62 to 69, with a final cell for ages 70 and over. For disabled workers, the age cells went by five-year age groups from 25-29 to 60-64, with a beginning cell for ages under 25. Average awards were found for each age cell, and then average awards over all ages were found by applying the weights projected for the category of beneficiary and the appropriate year of award.

The indices of awarded-benefit growth were established for each of the four groups of beneficiaries by comparing the average award computed for each constructed sample after 1980 to the corresponding average award for the 1980 constructed sample. Applying these indices to the actual 1980 average award produced the projected average awards. Table 2 summarizes the results that were obtained under Alternative II-B assumptions.

The next step was to calculate the average benefit being paid to all beneficiaries of the four beneficiary groups in each calendar year, given the average benefit of newly awarded beneficiaries. Again, weighted averages were calculated, where in this case the weights were the projected distributions of beneficiaries in each future year by years elapsed since award. The weights for each year were applied to the average awards of previous years, brought forward by any intervening general benefit increases, increased slightly due to earnings after retirement and to differential mortality, and summed. Table 3 summarizes the results that were obtained under Alternative II-B assumptions.

The final step was to calculate the average benefit being paid to the remaining beneficiary groups. Benefits to auxiliary beneficiaries of retired workers (wives, husbands, and children) were assumed to increase at the same rate as for the category of retired worker on whose record the benefit would be payable. Benefits to survivors of male or female deceased workers (widows, widowers, children, and parents of deceased workers) were also assumed to increase at the same rate as for the corresponding category of retired worker. However, benefits to some dually-entitled beneficiaries (entitled to both retired-worker and wife/husband benefits, or retired-worker and widow/widower benefits) were adjusted to account for the complex interaction of projected changes in the distributions of male and female benefits by size of PIA. Average benefits to auxiliary beneficiaries of disabled workers were related to

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the benefits of the corresponding disabled workers, but adjustments were made to account for the prospective effects (assuming a base year of 1980) of the 1980 Disability Amendments, which changed the rules for computing the maximum family benefit in disability cases.

Comparison of Alternative Assumptions

Average benefits to be awarded and paid in future years are projected to vary significantly, depending on the assumptions. Tables 4 and 5 summarize the average awards and benefits paid, respectively, under all four sets of long-range assumptions in the 1981 Trustees Report. Besides the economic assumptions shown in Table 1, the figures in Tables 4 and 5 depend on varying assumptions regarding mortality, fertility, and disability incidence rates, and other factors. For more information on the assumptions, methodology, and results of the long-range cost estimates, see the 1981 Trustees Report (footnote 4).

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Footnotes

[1] For more information on the CWHS, see "Continuous Work History Sample (CWHS), Description and Contents," by Warren Buckner and Preston Smith, paper prepared for meeting of American Statistical Association on August 11-14, 1980, Houston, Texas. Copies are available from the authors at SSA, Office of Research and Statistics.

[2] For more information on the CPS-IRS-SSA Exact Match File, see Report No. 8 of Studies from Interagency Data Linkages, "1973 Current Population Survey--Administrative Record Exact Match File Codebook, Part I--Code Counts and Item Definitions," by Faye Aziz, Beth Kilss, and Frederick Scheuren, SSA, Office of Research and Statistics, November 1978.

[3] For more information on the average wage series, see Actuarial Note No. 103, "Average Wages for Indexing under the Social Security Act and the Automatic Determinations for 1979-81," by Eli N. Donkar, SSA, Office of the Actuary, May 1981.

[4] "1981 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds," U.S. Government Printing Office, July 2, 1981. Copies may be obtained from SSA, Office of the Actuary.

[5] For more information on the PIA computation procedures, see Actuarial Note No. 100, "Computing a PIA after the 1977 Amendments," by Steven F. McKay, SSA, Office of the Actuary, February 1980, and Actuarial Study No. 86, "Effects of the Various Social Security Benefit Computation Procedures," by Steven F. McKay and Bruce D. Schobel, SSA, Office of the Actuary, July 1981.

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Table 1

ASSUMED BENEFIT INCREASE AND ANNUAL CHANGE IN AVERAGE WAGES, BY ALTERNATIVE SET OF ASSUMPTIONS[1]

	Benefit Increase				Change in Average Wages			
	Alt I	Alt II-A	Alt II-B	Alt III	Alt I	Alt II-A	Alt II-B	Alt III
1981	11.2%	11.2%	11.2%	11.2%	10.64%	10.22%	10.23%	11.49%
1982	8.9	9.3	9.7	13.4	9.57	9.78	9.59	10.91
1983	7.2	6.6	9.2	11.4	9.08	8.64	9.73	11.11
1984	5.5	5.8	8.5	11.0	7.64	7.90	8.80	11.43
1985	4.5	4.9	7.7	10.1	6.77	7.10	8.11	10.07
1986	3.6	5.5	6.9	9.2	6.15	6.96	7.31	9.31
1987	*	4.0	6.1	8.8	5.52	6.63	6.79	9.20
1988	4.9	3.5	5.3	8.3	5.08	5.72	6.17	9.98
1989	*	3.0	4.5	8.0	4.85	5.20	5.47	8.56
1990	4.0	3.0	4.0	7.5	4.63	5.10	5.39	8.20
1991	2.0*	3.0	4.0	7.1	4.50	5.00	5.50	7.90
1992	2.0*	3.0	4.0	6.7	4.50	5.00	5.50	7.60
1993	2.0*	3.0	4.0	6.3	4.50	5.00	5.50	7.20
1994	2.0*	3.0	4.0	5.9	4.50	5.00	5.50	6.80
1995	2.0*	3.0	4.0	5.5	4.50	5.00	5.50	6.40
1996	2.0*	3.0	4.0	5.1	4.50	5.00	5.50	6.40
1997 and later	2.0*	3.0	4.0	5.0	4.50	5.00	5.50	6.00

* For 1987 and 1989, benefit increases are not activated, due to 3-percent trigger in the automatic provisions. For 1991 and later, benefit increases are assumed to disregard the trigger and equal 2.0 percent.

[1] From the 1981 Trustees Report.

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Table 2

PAST AND PROJECTED AVERAGE ANNUAL BENEFITS[1] AWARDED TO NEW RETIRED-WORKER BENEFICIARIES AND DISABLED-WORKER BENEFICIARIES, BY SEX

Calendar Year	Retired Workers		Disabled Workers	
	Male	Female	Male	Female
1960	$ 1,104	$ 759	$ 1,128	$ 947
1965	1,249	918	1,264	1,034
1970	1,642	1,244	1,781	1,389
1975	2,876	2,078	3,167	2,292
1976	3,183	2,237	3,520	2,525
1977	3,496	2,414	3,844	2,748
1978	3,876	2,616	4,273	3,026
1979	4,435	2,929	4,794	3,376
1980	5,097	3,311	5,291	3,653
1981	5,595	3,629	5,678	3,917
1985	7,301	4,687	7,732	5,046
1990	9,562	5,919	10,707	6,867
1995	12,141	7,540	14,203	9,050
2000	15,776	9,735	18,770	11,750
2005	20,735	12,968	24,772	15,401
2010	27,153	17,309	32,571	20,163
2015	35,532	23,160	42,713	26,390
2020	46,431	30,398	55,902	34,515
2025	60,773	39,920	73,084	45,116
2030	79,471	52,183	95,523	58,968
2035	103,873	68,760	124,844	77,070
2040	135,761	89,867	163,164	100,729
2045	177,433	117,452	213,248	131,648
2050	231,895	153,503	278,704	172,060
2055	303,074	200,621	364,250	224,872

[1] Based on Alternative II-B assumptions of the 1981 Trustees Report.

NOTE: The average annual benefits exclude retroactive payments and payments attributable to dual entitlement to a secondary benefit. Awards made prior to a benefit increase occurring in the year of award are shown at the December rate (after the benefit increase).

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Table 3

PAST AND PROJECTED AVERAGE ANNUAL BENEFITS[1] PAID TO ALL RETIRED-WORKER BENEFICIARIES AND DISABLED-WORKER BENEFICIARIES, BY SEX

Calendar Year	Retired Workers		Disabled Workers	
	Male	Female	Male	Female
1960	$ 973	$ 691	$ 1,111	$ 921
1965	1,107	802	1,223	1,022
1970	1,550	1,143	1,652	1,351
1975	2,622	1,935	2,817	2,154
1976	2,866	2,099	3,085	2,324
1977	3,109	2,259	3,353	2,502
1978	3,374	2,426	3,646	2,696
1979	3,741	2,658	4,045	2,970
1980	4,285	3,008	4,610	3,366
1981	4,880	3,403	5,207	3,783
1985	7,394	4,953	7,434	5,223
1990	10,112	6,539	9,994	6,705
1995	12,544	7,927	12,660	8,241
2000	15,666	9,750	16,533	10,505
2005	19,890	12,198	21,845	13,598
2010	25,608	15,542	28,672	17,606
2015	33,593	20,408	37,965	23,094
2020	44,147	27,108	49,852	30,210
2025	57,819	35,927	65,256	39,484
2030	75,526	47,304	85,335	51,600
2035	98,324	61,855	111,580	67,468
2040	127,887	80,670	145,873	88,210
2045	166,509	104,955	190,653	115,284
2050	217,486	136,960	249,132	150,623
2055	284,740	179,175	325,596	196,845

[1] Based on Alternative II-B assumptions of the 1981 Trustees Report.

NOTE: The average annual benefits exclude retroactive payments and payments attributable to dual entitlement to a secondary benefit.

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Table 4

PROJECTED AVERAGE ANNUAL BENEFITS AWARDED TO NEW RETIRED-WORKER BENEFICIARIES AND DISABLED-WORKER BENEFICIARIES, BY SEX AND ALTERNATIVE SET OF ASSUMPTIONS[1]

Calendar Year	Retired Workers		Disabled Workers	
	Male	Female	Male	Female
	Alternative I			
1980	$ 5,097	$ 3,311	$ 5,291	$ 3,653
1990	8,521	5,236	9,858	6,309
2000	13,022	7,954	15,744	9,842
2020	31,640	20,550	38,790	23,898
2050	118,999	77,302	145,385	89,528
	Alternative II-A			
1980	$ 5,097	$ 3,311	$ 5,291	$ 3,653
1990	8,813	5,408	10,131	6,481
2000	14,257	8,717	17,127	10,702
2020	38,141	24,801	46,451	28,591
2050	165,547	108,629	200,894	123,603
	Alternative II-B			
1980	$ 5,097	$ 3,311	$ 5,291	$ 3,653
1990	9,562	5,919	10,707	6,867
2000	15,776	9,735	18,770	11,750
2020	46,431	30,398	55,902	34,515
2050	231,895	153,503	278,704	172,060
	Alternative III			
1980	$ 5,097	$ 3,311	$ 5,291	$ 3,653
1990	11,687	7,283	12,872	8,258
2000	21,596	13,403	25,471	15,960
2020	70,016	45,996	83,495	51,541
2050	403,218	267,706	480,016	296,137

[1] From the 1981 Trustees Report.

NOTE: The average annual benefits exclude retroactive payments and payments attributable to dual entitlement to a secondary benefit. Awards made prior to a benefit increase occurring in the year of award are shown at the December rate (after the benefit increase).

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Table 5

PROJECTED AVERAGE ANNUAL BENEFITS PAID TO ALL RETIRED-WORKER BENEFICIARIES AND DISABLED-WORKER BENEFICIARIES, BY SEX AND ALTERNATIVE SET OF ASSUMPTIONS[1]

Calendar Year	Retired Workers		Disabled Workers	
	Male	Female	Male	Female
		Alternative I		
1980	$ 4,285	$ 3,008	$ 4,610	$ 3,366
1990	7,814	5,030	7,974	7,283
2000	11,076	6,727	12,420	10,701
2020	26,474	15,868	31,160	25,575
2050	96,473	58,688	116,954	95,710
		Alternative II-A		
1980	$ 4,285	$ 3,008	$ 4,610	$ 3,366
1990	8,286	5,338	8,396	5,603
2000	12,502	7,630	13,769	8,679
2020	33,025	19,957	38,171	22,956
2050	140,268	86,478	165,558	99,285
		Alternative II-B		
1980	$ 4,285	$ 3,008	$ 4,610	$ 3,366
1990	10,112	6,539	9,994	6,705
2000	15,666	9,750	16,533	10,505
2020	44,147	27,108	49,852	30,210
2050	217,486	136,960	249,132	150,623
		Alternative III		
1980	$ 4,285	$ 3,008	$ 4,610	$ 3,366
1990	11,820	7,667	11,513	7,736
2000	20,922	13,176	21,537	13,739
2020	65,048	40,390	71,951	43,793
2050	373,870	239,257	415,691	252,357

[1] From the 1981 Trustees Report.

NOTE: The average annual benefits exclude retroactive payments and payments attributable to dual entitlement to a secondary benefit.

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